ABSTRACT

A rigid drive axle assembly includes a support beam member having a substantially flat central plate section, a differential assembly module secured to the central plate section through at least two threaded studs extending from the central plate section. The differential assembly module includes a differential carrier frame member having two bearing hubs receiving differential bearings. A method for verifying a predetermined bearing preload of the differential assembly module comprises the steps of preloading the differential bearings to the predetermined bearing preload, inserting mounting bores in the bearing hubs of the frame member onto the mounting studs, and determining that the differential bearings are properly preloaded if the mounting studs are received in the mounting bores in the differential carrier frame member without substantial resistance, or determining that the differential bearings are not properly preloaded if the mounting studs may not be received in the mounting bores easily.